LOWER LEY CREEK SUBSITE
PRP NEXUS REPORT
New Venture Gear, Inc.

October 14, 2014

Compiled by:

PALMERTON GROUP
A Division of GZA GeoEnvironmental, Inc.

Executive Summary:

This summary report documents the waste types and waste-in contributions attributable to the New Process Gear/New Venture Gear/Magna (NVG) Facility to the Lower Ley Creek Subsite, and provides a summary of site history and facts pertaining to NVG liability at the Lower Ley Creek Subsite. The report is a summary of data/evidence collected and produced by others. Data sources for the information presented in this document are summarized in the reference section, and select information supporting the conclusions reached in this report is included in Appendix A.

Site History:

The NVG Facility has been located at 6600 New Venture Gear Drive, East Syracuse, NY since 1960. The facility has had several operators beginning with Chrysler Motors Corporation which operated the facility from 1960 to 1987; Acustar, Inc. operated the facility from 1987-1990; and, in 1990, a new GM-Chrysler joint venture, New Venture Gear, Inc., took over facility operations. In 1998, Daimler Benz merged with Chrysler to form Daimler Chrysler. In 2002 Daimler Chrysler bought the entire 36% minority stake in New Venture Gear, Inc. from GM while retaining ownership of the Syracuse New Process facilities. In 2007, Magna International acquired Daimler Chrysler's interest in New Venture Gear, Inc. (Magna International also incorporated two related companies, New Process Gear, Inc. and Magna Powertrain USA, Inc.) Due to decreased demand for plant production, design and engineering services were moved to Troy, Michigan in 2009 and Magna International announced its intent to close the Syracuse plant. Production at the NVG Facility ended in August, 2012. New Venture Gear, Inc., New Process Gear, Inc., and Magna Powertrain USA, Inc. remain active corporations in New York.

Since 1960, the NVG Facility manufactured automobile transmissions and transfer cases. The manufacturing processes included: wet grinding of ferrous metals, parts cleaning, cutting, turning, luberizing and the handling of parts and metal chips. Major raw materials used at the facility included cast iron, malleable iron, steel, aluminum, and lubricants/cutting oils. In 1973, the plant reported using 1,105,000 gallons of cutting oils.

Process wastes generated include grinding swarf (sludge), coolant/used oil, metal chips, Freon, and trichloroethane. Grinding swarf and metal chips were stored on-site in roll-off container, storage bins and trailers before being transported offsite for disposal. NVG reported in its 1995 section 104(e) response that it was recycling/reclaiming 300,000 to 1.3 gallons of coolant/used oil per year. Non-process wastes generated by maintenance activities included paint, PCB-containing equipment and radioactive waste (TAMS, 2000 pg. 8). The NVG facility operated as a small quantity generator (NYD00223994) pursuant to 6 NYCRR Part 372, and reportedly generated over time waste codes D001, D002, D009, D035, D039, F001, K054, and U013. The facility submitted, but later withdrew, a Part A RCRA TSD application.

Historic use of PCB oil at the facility included two welders and a "closed loop" hydraulic lift in the 1980s that were reportedly retro-filled. A hazardous waste manifest from 1984 indicated that 580 gallons of PCB waste liquids and one 55 gallon drum of PCB-waste solids were generated at the site and disposed

at a facility in Ohio. PCB transformers were reportedly routinely decommissioned at the facility and disposed off-site. Since 1983, the NVG facility manifested the following types of PCB wastes: B001 (PCB oil – concentrated from transformers and capacitors); B002 (Petroleum oil or liquid containing > 50 ppm and < 500 ppm PCBs); B003 (Petroleum oil or liquid containing >500 ppm PCBs); B004 (PCB Articles containing >50 ppm and <500 ppm PCBs, excluding small capacitors); B005 (PCB Articles other than transformers containing >500 ppm PCBs); B006 (PCB Transformers containing >500 ppm PCBs); and B007 (Other PCB wastes, including contaminated soil, solids, sludges, and clothing).

Process wastewaters were generated from the facility's washers, burnishers, luberizing systems, drummed oil and cleaners storage area, grinding/machining areas, and chip hoppers. These wastewaters were treated by an on-site industrial waste treatment plant prior to discharge (see discussion below). Sanitary wastewaters generated were released to the municipal sanitary sewer system without treatment (TAMS, 2000 pg. 8).

Known Discharges, Violations, and Spills:

New Venture Gear held an Onondaga County Department of Drainage and Sanitation (OCDDS) Industrial Wastewater Discharge permit which allowed process and sanitary wastewater to be released into the municipal sanitary sewer system (METRO sewage treatment plant). Prior to the diversion of flow to the METRO facility in the late 1960s, process waters were discharged to the Ley Creek Sanitary District.

According to documents provided by NVG with its section 104(e) response, the average flow discharged from the on-site wastewater treatment plant to the municipal sewer system from December 1994 to February 1995 was 0.083 million gallons per day (MGD). Process wastewater contained solids, heavy oils, cyanide, and metals. Wastewater was batch treated in one of three 250,000-gallon sedimentation and/or flocculation tanks and mixed with additives such as aluminum sulfate and lime. Oily wastes were skimmed and pumped from the tanks for off-site recovery (TAMS, 2000 pg. 8). In 1982, the on-site industrial wastewater treatment plant treated and discharged approximately 0.164 MGD; in 1978, on-site treatment and discharged was approximately 0.26 MGD (TAMS, 2000 pg. 16).

Stormwater runoff, non-contact cooling water and blow-down water from the NVG facility was collected in two stormwater lagoons which were constructed in 1974, and then subsequently discharged to Sanders Creek, a tributary of Ley Creek under a New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Permit. Sanders Creek (a tributary of the South Branch of Ley Creek) is located to the east approximately 2,500 feet from the NVG facility and approximately 2,000 feet from the location of stormwater lagoon # 1. The two lagoons were connected in series by a storm drainage ditch with an oil skimmer installed on the downstream lagoon (#1) (TAMS, 2000 pg. 4). Information provided by NVG's SPDES permit and application material identify a design flow of 1.0 MGD and an actual discharge of approximately 0.225 MGD of stormwater, non-contact cooling water and boiler blowdown water to Sanders Creek.

A 1969 Ley Creek Drainage Discharge Report indicated that NVG's total wastewater usage ranged between 250,000 and 275,000 gallons per day. Approximately 80,000 gallons per day of water were

reportedly used in the once-through cooling water system and was discharged primarily to the sanitary sewer with the remainder to the storm sewer (surface disposal). Approximately 110,000 gallons per day of process wastewater, and an estimated 15,000-30,000 gallons per day of sanitary wastewater, was discharged to the combined sanitary-process sewer (Weston, 1969 pg. A-37). Process wastewater contained alkaline cleaners, soluble minerals, and lubricating oils (Weston, 1969 pg. A-38). The NVG process wastewater which was discharged to the Ley Creek STP contained a median oil concentration of 205 mg/L, exceeding Onondaga County's discharge limits (Weston, 1969 pg. A-39). The plant discharged an average of 190 pounds of oil and grease per day (Westin, 1969 Table 1).

Weston reported in its 1969 report that the NVG storm sewers discharged to the surface and flowed across Chrysler Drive near the Town of Dewitt Water Company and the Carrier Corporation water tower (Weston, 1969 pg. A-39). This surface runoff was observed to contain floating oil (with samples as high as 686 mg/L oil), which appeared to be an accumulation retained by weeds and other undergrowth present (Weston, 1969 pg. A-39). Oil and grease was observed in every storm sewer sample taken (Weston, 1969 pg. A-39).

Additional samples were collected from a NVG batch tank and manhole in 1973. Both sample locations detected chromium, copper, iron, magnesium, and manganese, while the manhole sample also detected mercury and nickel (O'Brien & Gere, 1973). Samples collected in 1975 as part of Onondaga County's Industrial Waste Monitoring Program detected oil and grease at levels up to 16,441 mg/L (O'Brien & Gere, 1975), samples collected in 1976 had oil and grease levels as high as 4,805 mg/L (O'Brien & Gere, 1977), and samples collected in 1981 had oil and grease levels as high as 2,054 mg/L (Calocerinos and Spina, 1981).

According to New Venture Gear's section 104(e) response, historic spill or release incidents at the site included:

- A release of coolant in the 1960s to an adjacent industrial pond. The quantity of the discharge was unknown, and the coolant was reportedly skimmed off the pond and transported to the facility's wastewater treatment plant;
- In 1970, approximately 10 gallons of oil entered a storm sewer during a maintenance project;
- In December 1992, a suspected petroleum release was reported to NYSDEC resulting from a failed tank tightness test on one of the underground storage tanks at the facility; and
- In December 1994, a petroleum spill was reported following evidence of a pipe failure to the backup fuel oil supply.

The NYSCDEC Spills Incident Database records show that since 1987, over 40 spills involving petroleum products and oils have been reported at the NVG facility.

On February 26, 2013, an unknown volume of cutting oil was released to the SPDES permitted storm water pond which discharges to Sanders Creek (Spill no. 1215916). The pond is not permitted for oily wastewater. Inflatable plugs were installed at the outfall structure and the contained water was pumped to the on-site pretreatment plant and then discharged to Onondaga County's Metropolitan

Sewage Treatment Plant. Per NYSDEC's requirements, the pond was sampled twice for volatiles, semi-volatiles, metals and oxygen demand. After reviewing analytical results and performing a site visit, NYSDEC granted permission to discharge water back to Sanders Creek on March 21, 2013.

Site Investigations and Remediation:

As discussed in the Site Summary report for the NVG Facility, a site investigation was performed in February 1993. Soil samples were collected near the two on-site stormwater lagoons, near the wastewater treatment facility and near the drum storage area. Soil samples were analyzed for volatile organics, semi-volatile organics and RCRA metals. Analytical results provided by NVG in its section 104(e) response indicate that volatile and semi-volatile organics were not detected in the soil samples. Metals found in samples collected adjacent to the wastewater treatment facility area exceeded NYSDEC's recommended soil cleanup objectives for arsenic barium, chromium and mercury. Chromium exceeded NYSDEC's recommended soil cleanup objectives in samples collected in the drum storage area and near both lagoons, and mercury exceeded the cleanup objective in samples collected near both lagoons (TAMS, 2000 pg. 22).

Four groundwater monitoring wells were installed in 1992 after the petroleum release in December 1992. The samples were analyzed for volatile organics, semi-volatile organics and RCRA metals. Analytical results provided by NVG from 1993 indicate that volatile organics and semi-volatile organics were not detected in the groundwater samples. Arsenic, barium, chromium, lead and mercury were detected in water samples collected near the wastewater treatment plant and both lagoons at concentrations greater than the NYSDEC class GA groundwater standards (TAMS, 2000 pg. 24).

In 2012, TTL, Inc. performed a Phase I Environmental Site Assessment (ESA) at the NVG facility and identified the following recognized environmental conditions:

- An active stormwater pond and former pond, which may have been impacted during recorded and non-recorded historic spills that entered the stormwater system;
- Historic manufacturing activities, including the use of industrial wastewater lines to carry process water and a Wastewater Treatment Plant (WWTP) to treat the water;
- A historic WWTP that operated inside the plant from 1962-1970;
- Historic use of aboveground and underground storage tanks to store petroleum, oils and hazardous chemicals;
- Historic soil and groundwater samples that contained concentrations of metals above state and EPA-established limits;
- Concrete and wood/composite block floors throughout the plant that are saturated with oil;
- A former railroad spur on-site with visibly stained soils.
- An unmarked monitoring well near the southwest corner of the building, near the chip crusher room, not indicated on historic reports for the site;
- Historic hazardous waste generation at the site.

TTL, Inc. performed a Phase II Environmental Site Assessment in December 2012 as a result of the identified RECs at the facility. Sampling efforts involved the advancement of 33 probe holes in areas potentially impacted by industrial operations. These areas included the stormwater pond, underground storage tanks, east pad, soil and groundwater beneath the WWTP, stormwater lines, railroad spurs, industrial wastewater lines, and coolant pits and flumes. Soil and groundwater samples were analyzed for volatiles (VOCs), semi-volatiles (SVOCs) and total RCRA metals. Laboratory analytical results of samples collected from these areas are summarized in TTL's Phase II Environmental Site Assessment Report dated December 3, 2012 and are presented below.

Analytical results of soil samples collected from the stormwater pond contained detectible concentrations of VOCs, SVOCs and total RCRA metals less than the 6 NYCRR Part 375 Soil cleanup objectives (SCOs) for restricted use. Detected constituents included: acetone, 2- methylnapthalene, acenaphthene, fluoranthene, fluorine, phenanthrene, pyrene, benzo(a)anthrancene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, total lead, and total mercury.

Groundwater analytical results for the same locations also had detectible concentrations of VOCs, SVOCs, and total RCRA metals greater than the 6 NYCC Part 703 Water Quality Standards (WQS) or Guidance Value (GV). Detected constituents included: dichlorodifluoromethane, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, fluranthene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, total arsenic, total barium, total cadmium, total chromium, total lead and total selenium.

Analytical results of soil and groundwater samples collected from the underground storage tanks location were less than applicable SCOs or WQS with the exception of one groundwater sample that had exceeded the WQS for total arsenic, total barium, total chromium, and total lead.

The soil sample collected from the East Pad sample location did not contain VOCs, SVOCs, or total RCRA metals greater than the applicable SCOs for soil. Groundwater was not encountered at this location.

Soil samples collected at the WWTP location were observed to have a black oily sheen. No VOCs, SVOCs or total RCRA metals were detected greater than applicable SCOs, but Total Petroleum Hydrocarbons, Diesel Range Organics (TPH-DRO) was detected at a concentration of 6,200 mg/kg. NYSDEC has not established an SCO for TPH-DRO.

VOCs or SVOCs were not detected at concentrations greater than applicable SCOs in the soil samples collected near the stormwater lines. The concentration of total arsenic exceeded the restricted SCO. VOCs or SVOCs were not detected at concentrations greater than the WQS or GV in the groundwater samples: however, total arsenic, total barium, total cadmium, total chromium, and total lead exceeded their respective WQS.

VOCS or SVOCS were not detected at concentrations greater than applicable SCOs in the soil samples collected near the railroad. TTL reported that one soil sample at this location was observed to have

black oily gravel. TPH-DRO was detected in this soil sample at a concentration of 1,600 mg/kg. VOCs or SVOCs were not detected at concentrations greater than the respective WQS or GV in the groundwater samples, however total arsenic, total chromium, and total lead exceeded the respective WQS.

According to TTL, soil samples collected in the vicinity of the industrial wastewater lines exhibited black oily staining with a petroleum odor. Acetone, tetrachloroethene, and di-n-butyl-phthalate concentrations were detected at concentrations that exceeded the unrestricted use SCO, but less than the restricted use SCO. Total arsenic was detected at concentrations greater than the restricted use SCO. TPH-DRO was also detected at this location. Groundwater samples had the following detections greater than their applicable WQS: acetone, Bis (2-ethylhexyl) phthalate, total arsenic, total barium, total chromium, total lead, total selenium, and total mercury.

Soil and groundwater were sampled below the facility's slab. VOCs, SVOCs, and total RCRA metals were not detected at concentrations greater than applicable SCOs in the soil samples, with the exception of acetone at one location, which exceeded unrestricted SCOs, but was less than restricted use SCOs. No VOC or SVOC constituents were detected at concentrations greater than applicable WQS or GV in the groundwater sample. The concentrations of total arsenic, total barium, total chromium, and total lead exceeded their respective WQS in the groundwater samples.

Soil and groundwater samples were collected at the coolant pits and flumes. VOCs, SVOCs, or total RCRA metals were not detected at concentrations greater than applicable SCOs in the soil samples with the exception of acetone at one location, which exceeded unrestricted SCOs, but was less than applicable restricted use SCOs. VOC or SVOC constituents were not detected at concentrations greater than applicable WQS or GV in the groundwater sample.

TTL observed black organic/oily material that was encountered at five of the probehole locations during the Phase II investigation. As a result, TTL contacted NYSDEC on November 8, 2012 to report the potential release of contaminants. Spill number 1209735 was assigned to cover the five locations (TTL, Inc. 2012, pg. 11).

A supplemental Phase IIA was performed in December 2012 to further delineate the extent of contamination in all areas identified in the Phase II ESA and the five spill locations. The six areas of concern are summarized below from TTL Inc.'s Phase IIA Environmental report dated January 4, 2013 and are presented below.

Three areas associated with the industrial wastewater line were identified during the first Phase II investigation. During the Phase IIA investigation, additional probe holes were advanced at three separate locations along the wastewater line. At one location (samples J12 and J-13), tetrachloroethylene was detected in a soil sample taken during the initial Phase II ESA in the vicinity of the industrial wastewater line at a concentration greater than the unrestricted use SCOs. Analytical results from these additional soil samples were found at levels less than the applicable residential SCO. Other locations along the wastewater line (samples H35 and J35), contained di-n-butylphthalate at a concentration that exceeded the ecological resources SCO. Arsenic levels were detected at

concentrations greater than the applicable industrial SCO. Additional sample results from this area indicated that, with the exception of arsenic, no constituents were found at concentrations greater than the unrestricted use SCO.

Additional samples were also collected near the area where visibly-discolored and stained soil was previously encountered (KK 36). Results for TPH-DRO ranged from non-detect to 16 mg/kg. No constituents were found at concentrations greater than unrestricted use SCOs.

During the initial Phase II investigation, visibly stained soiled was observed near the flume pit location by TTL. Analytical results from this location had detected concentrations of TPH-DRO values at 5,500 ppm. VOC, SVOC, or metal concentrations were not detected at concentrations greater than applicable restricted SCOs in the soil samples. During additional sampling efforts, TTL encountered stained soil and groundwater with an oily sheen and hydrocarbon odor in multiple locations around the edge of the flume pit. Analyses found TPH-DRO in the soil at concentrations ranging from 7.6 ppm to 3,800 ppm. Concentrations of VOCs and SVOCs were detected in the soil sample, but less than unrestricted use SCOs. Metal analysis was not performed on this set of samples.

TTL observed staining and an oily substance near the railroad spur and the WWTP. Additional analyses found TPH-DRO and concentrations of SVOCs in this area, but less than unrestricted use SCOs.

The former stormwater pond located on the south side of the property had detected levels of VOCs, SVOCs, and metals in the soils, but below unrestricted use SCOs. Groundwater samples had concentrations of SVOCs greater than applicable WQS. Additional sampling of the groundwater still showed concentrations of SVOCs greater than applicable WQS.

The active storm water pond, related pipes and infrastructure are part of the NVG's State Pollution Discharge Elimination (SPDES) permit and system. During the Phase II investigation, TTL observed soil and sediment visibly impacted with an oily substance. Analytic results found TPH-DRO, low levels of VOCs, elevated levels of SVOCs above industrial use SCOs. Lead and mercury were also found in the soil/sediment at levels exceeding unrestricted use SCOs. Groundwater samples showed concentrations of toluene and dichlorodifluoromethane (R-12 freon) both exceeding the applicable WQS. SVOCs were also detected at concentrations that exceeded water quality standards.

On April 25, 2013, a request for a no further action letter for the six areas of concern was submitted to the NYSDEC. According to this letter "removal of stormwater pond soil and sediments should be performed along with removal of any contributing sources from the stormwater pond, pipes, and infrastructure. Any additional investigation and remedial action will be completed by NPG as part of its SPDES permit closure requirements."

On August 16, 2013, NYSDEC issued a determination that no further remedial action was required for the six identified areas of concern. As part of the SPDES permit closure, a sampling plan of the pond is required. Any findings which trigger a requirement of remediation will be further addressed by the Department.

At this time, it is unknown if additional sampling or remedial actions have been performed regarding the stormwater pond and subsequent SPDES permit closure. Historic and current sampling efforts at the NVG facility summarized in this report did not contain soil or groundwater laboratory analysis for polychlorinated biphenyls (PCBs).

Sanders Creek and Ley Creek:

Surface sediment samples were collected from Sanders Creek in 1996 and 1997 by the NYSDEC. Sample locations located near the NVG facility contained concentrations of arsenic, benzo(a)anthrancene, Aroclor 1254, and Aroclor 1260 greater than the NYSDEC sediment screening criteria. The exact discharge location of the NVG's stormwater lagoon was unclear, so it was unknown whether or not the sample locations were taken upstream or downstream of the discharge location. Publicly available documents indicate that no additional sampling efforts were conducted in Sanders Creek near the NVG facility.

Conclusions:

Documented releases of hazardous substances from the Magna/New Venture Gear/New Process Gear Facility into the Ley Creek Watershed include, but are not limited to: volatile organic compounds (acetone, dichlorodifluoromethane) semi-volatile organics (2-methylnapthalene, acenaphthene, fluoranthene, fluorine, phenanthrene, pyrene, benzo(a) anthrancene, benzo(b)fluoranthene, benzo(k) fluoranthene, chrysene, dibenz(a,h)anthracene, anthracene, bis(2-ethylhexyl)phthalate, chrysene, fluranthene, indeno (1,2,3-cd)pyrene, phenanthrene, pyrene, petroleum compounds (Total Petroleum Hydrocarbons, Diesel Range Organics (TPH-DRO)) and metals (arsenic, barium, cadmium, chromium, lead, selenium and mercury). Historic and current subsurface investigations at the NVG facility summarized in this report did not include any analysis for polychlorinated biphenyls (PCBs) for either soil or groundwater.

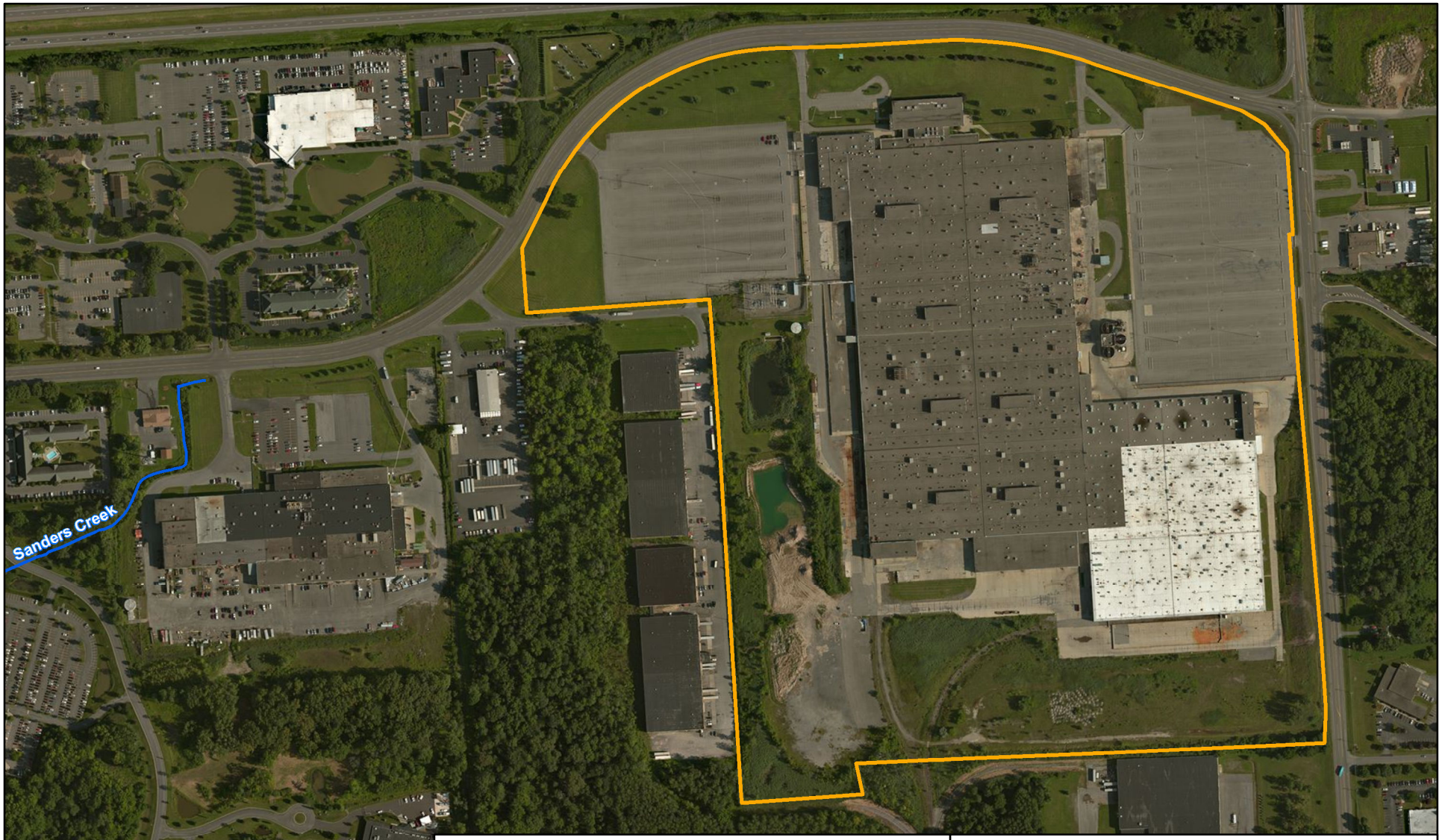
The information reviewed establishes the NVG Facility's nexus to Lower Ley Creek, including discharges, spills, and releases of the above-listed hazardous substances from the Facility into soil, sediment, groundwater, and drainage ditches discharging into Sanders Creek and ultimately Ley Creek. Additionally, the facility discharged oil and grease and hazardous substances to the Ley Creek STP, with oil and grease levels exceeding Onondaga County's discharge limits.

Based on the information reviewed, Magna International/New Venture Gear, should be given notice by the USEPA of its potential liability at the Lower Ley Creek Subsite and included in any future negotiations between the agency and PRPs.

References:

Information reviewed to generate this report has been summarized from the New Venture Gear, Inc. Site Summary Report (SSR) prepared by TAMS in 2000, Environmental Investigation Reports by TTL, Inc.,

Onondaga County Wastewater Reports from the 1060s to the 1980s, facility information publicly available, and other select reports and records obtained from USEPA, Onondaga County and NYSDEC. The information found in the SSR Report was originally obtained from the CERCLA Section 104(e) responses of New Venture Gear Site ID 259, as well as supplemental information from the NYSDEC.



Legend

Site Boundary

Tributary of Ley Creek

The property is currently owned by Syracuse Properties LLC

0 500 1,000 FEET

1:6,000 | 1 INCH = 500 FEET

FORMER NEW VENTURE INC. FACILITY

SITE MAP

PALMERTON GROUP
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FIGURE
1